

III. REMARKS

Claim Status

Claims 1-12 and 17-20 are pending.

Claim Rejections - 35 USC § 103(a)

Claims 1-7, 10-12, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beecher et al. (WO 00/67293) in view of Dreyfus (USP 5,854,486).

Applicant provided an analysis of the relative thicknesses in their last response that demonstrated that the examiner is comparing "apples to oranges". Applicant would clearly not be claiming a deviation of 100 microns or less where the prior art already suggests a deviation of 0.1 micron or less.

The examiner states that Beecher et al. teach that the ultraphobic layer has a thickness, for example, of 1 micron and concludes that the local flatness deviation of the film layer in such case would have to be less than 100 micrometers in order for the layer to be continuous.

There is a logical problem with the examiners argument. The layer does not necessarily have to be continuous to have an average thickness of 1 micron and the surface deviation could be greater than 100 micrometer.

But the underlying issue is not the factual consideration of whether by picking and choosing an amount within the broad range of values disclosed by the combination of Beecher et al. and Dreyfus teach the smoothness of the present claims or whether using a *post hoc* analysis, the examiner could arrive at a thickness within the range disclosed by Beecher et al.

The question is fundamentally the legal question of inherency and whether the disclosure of a generic range renders obvious a portion of the

range claimed by applicant.

1. Doctrine of Inherency

The Doctrine of Inherency provides that something which is old does not become patentable upon the discovery of a new property. The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims. The inherent teaching of a prior art reference is a question of fact. *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995)

"[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999).

Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

An inherent feature need not be recognized at the time of the invention.

Schering Corp. v. Geneva Pharm. Inc., 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1668 (Fed. Cir. 2003) ; *Toro Co. v. Deere & Co.*, 355 F.3d 1313, 1320, 69 USPQ2d 1584, 1590 (Fed. Cir. 2004).

In *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1343-44, 74 USPQ2d 1398, 1406-07 (Fed. Cir. 2005) the court held that a prior art patent to an anhydrous form of a compound "inherently" anticipated the claimed hemihydrate form of the compound because practicing the process in the prior art to manufacture the anhydrous compound "inherently results in at least trace amounts of" the claimed hemihydrate even if the prior art did not discuss or recognize the hemihydrate.

2. Exceptions to the Application of the Doctrine

However, there are limitations imposed on the use of the doctrine. For example, the examiner must provide evidence showing inherency. **The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.**

In *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993), the examiner's rejection was reversed because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art.

In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981) stands for the proposition that, "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.**' [emphasis supplied]

3. Limited Range within Broad Range

An "invitation to investigate is not an inherent disclosure". *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1367, 71 USPQ2d 1081, 1091 (Fed. Cir. 2004). In *Metabolite* the court found that a prior art reference which "discloses no more than a broad genus of potential applications of its discoveries." does not establish inherency. The court explained that "[a] prior art reference that discloses a genus still does not inherently disclose all species within that broad category" but must be examined to see if a disclosure of the claimed species has been made or whether the prior art reference merely invites further experimentation to find the species.

When the prior art discloses a range which overlaps the claimed range, **but no specific examples falling within the claimed range are disclosed**, a case by case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute."

What constitutes a "sufficient specificity" is fact dependent.

If the claims are directed to a narrow range, the reference teaches a broad range, **and there is evidence of unexpected results within the claimed narrow range**, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims **or to render the claims unobvious**. The question of "sufficient specificity" is similar to that of "clearly envisaging" a species from a generic teaching.

4. Discussion

It is abundantly clear that the references did not contemplate the significance of the portion of their broad range that is workable in applicant's invention.

The fact that the narrow range claimed by applicant is result dependent is set forth at paragraphs [0021] and [0022] of applicant's specification

[0021] In a preferred embodiment of the present invention, the surface formation is configured as a single use article. A surface formation with several layers and a first layer with an ultraphobic surface, and a carrier layer, with the first layer being applied reversibly to the carrier layer, and the maximum local flatness deviation of the surface formation being 100 μm , preferably <20 μm on a length of 100 mm, is particularly suitable for this embodiment.

[0022] This surface formation has the advantage of allowing the first layer with the ultraphobic surface to detach from the carrier layer after one or after several uses and to be replaced by a new first layer so that it is impossible for the first layer to be contaminated by previous experiments. The first layer with the ultraphobic surface is particularly economic when made to be disposable. As a result of the defined flatness according to the invention, the surface formation is guaranteed to be usable in all current mass spectrometers and/or optical analysis

equipment.

Applicant provided an analysis of the relative thicknesses in his last response the demonstrated that the examiner is comparing "apples to oranges". Applicant would clearly not be claiming a deviation of 100 microns or less where the prior art already suggests a deviation of 0.1 micron or less.

The examiner states that Beecher et al. teach that the ultraphobic layer has a thickness, for example, of 1 micron and concludes that the local flatness deviation of the film layer in such case would have to be less than 100 micrometers in order for the layer to be continuous.

There is a logical problem with the examiners argument. The layer could not be continuous and still have an average thickness of 1 micron and the surface deviation could be greater than 100 micrometer.

But the underlying issue is not the factual consideration of whether the combination of Beecher et al. and Dreyfus might teach the smoothness of the present claims or whether using a *post hoc* argument, the examiner could arrive at a thickness within the range disclosed by Beecher et al.

The question is fundamentally the legal question of inherency and disclosure of a generic range where only a portion of the generic range is now claimed. As set forth above the examiner has not made out a *prima facie* case.

As stated above, the doctrine of inherency properly is applied when the reference shows that a certain thing will always result from a given set of circumstances. That the result may sometimes occur is not sufficient. *In re Oelrich, infra.*

The references disclose ranges outside the claimed ranges and thus do not disclose that a certain thing will always result. Moreover, the references do

not even discuss the result obtained by applicant (prevention of contamination upon multiple uses [paragraph 0022]).

The examiner's position is that it is old to limit the thickness to a value within applicants narrowly claims range absent surprising results.

But Applicant has disclosed surprising results that advance the art and increase the usability of current mass spectrometric and optical analysis equipment.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beecher et al (WO 00/67293) in view of Dreyfus (USP 5,854,486) and further in view of Nelson et al (USP 5,955,729).

Beecher et al. and Dreyfus are discussed above.

Claims 8 and 9 are indirectly dependant upon claim 1 and as such contain the limitations of claim 1. Nelson et al. do not discuss or suggest the importance of maintaining the deviation of the surface formation at less than 100 microns in 100 millimeters and thus does not fill the lacuna present in the examiner's argument.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

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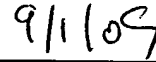
Response to Office Action dated April 1, 2009 and Advisory Action dated July 7, 2009

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Respectfully submitted,



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